

Name: _____

Date: _____

LESSON 1: WHAT IS AN INEQUALITY? HOMEWORK

1. Which of the following $\{3, 10, -6, 14, -10\}$ are solutions to the inequality $x - 8 \geq 2$? Support your answers with substitution or a visual model.

2. The only solution to the inequality $x + 45 < 80$ is 40. Do you agree or disagree? Defend your answer using substitution, a visual model, or a written explanation.

3. Which set of numbers, when substituted for \bigcirc , are solutions to the inequality?

$$\bigcirc \leq 349$$

- a. 150, 200, 250, 350
- b. 300, 349, 125, 334
- c. 343, 345, 350, 450
- d. 213, 345, 265, 435

4. Ella says that $x > 10$ is not the same as $10 < x$. Do you agree or disagree? Defend your answer with substitution, a visual model, or a written explanation.

5. Which of the following $\{3, 10, -6, 14, -10\}$ are solutions to the inequality $-8x \geq 2$? Support your answers with substitution or a visual model.